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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,186	06/30/2003	Claudio Locatelli	82062-0052	8775

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EXAMINER

WELCH, GARY L

ART UNIT	PAPER NUMBER
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3765

DATE MAILED: 03/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/608,186

Applicant(s)

LOCATELLI ET AL.

Examiner

Gary L. Welch

Art Unit

3765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-9 and 11-25 is/are rejected.
- 7) ☒ Claim(s) 4,5 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>06302003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Europe on 1 July 2002. It is noted, however, that applicant has not filed a certified copy of the foreign application as required by 35 U.S.C. 119(b).

Specification

2. The disclosure is objected to because of the following informalities:

Page 3, lines 13 and 16: Delete reference to claim 1 and claim 20 respectively since claim numbering may change when the case is allowed.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 6, 11, 15, 16 and 20-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patelli et al. (U.S. 6,061,878) in view of Kip et al. (U.S. 878,884).

Patelli et al. discloses a carding machine having a main drum 20 fed by a feed system (those elements upstream of the carding drum as shown in Figure 2) and at least one system of flats 22 for carding the fibers. The feed system comprises at least two opening cylinders or briseurs (30a, 30b) which feed the main drum 20 at different points.

However, Patelli et al. does not disclose that the system of flats comprises a plurality of sets of moving flats arranged downstream of the briseurs.

Kip et al. teaches a carding machine having a set of moving flats (5, 6) arranged along the periphery of the carding drum 2. The purpose of a set of moving flats as opposed to a single moving flat is that the product is equal to or exceeds double carding due to the increased efficiency of the cleaner flats and greater removal of foreign material from the product thereby providing improved quality, parallelization and stronger product (Col. 5., lines 23-41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the single set of moving flats of Patelli et al. with two sets of moving flats as taught by Kip et al. in order to provide a product that equals or exceeds double carding due to the increased efficiency of the cleaner flats and greater removal of foreign material from the product thereby providing improved quality, parallelization and stronger product (Col. 5., lines 23-41).

With regard to claim 2, the second set of moving flats 6 is arranged downstream of the first set of moving flats 5.

With regard to claim 3, the set of flats (5, 6) have clothing thereon (Figure 7 of Kip et al.) of a predetermined population.

With regard to claim 6, a refining region (Figure 7) is located between the sets of moving flats (5, 6) directed towards the carding drum 2 and is capable of working the fiber carried by the drum 2 and flats (5, 6). Plate 36 has an edge which is capable of working the fiber on the drum 2.

With regard to claim 11, a precarding region 21 (Figure 2 of Patelli et al.) is directed towards the main drum 20 and situated upstream of the moving flats.

With regard to claim 15, a storage apparatus (26, 27a, 27b) is located upstream of the briseurs (30a, 30b).

With regard to claim 16, fiber cleaning and attenuating systems (42, 43) for each briseur (30a, 30b) is provided.

With regard to claims 20-25, the method steps are disclosed in the above rejections to the apparatus claims.

5. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patelli et al. (U.S. 6,061,878) in view of Kip et al. (U.S. 878,884) as applied to claim 6 above, and further in view of Pferdmenges et al. (U.S. 6,477,742)

Patelli et al. and Kip et al. disclose the invention substantially as claimed above.

However, they do not disclose that the refining region has suction nozzles.

Kip et al. discloses a gravity feed chute 52 for removing the fiber waste.

Pferdmenges et al. teaches a carding machine having a suction nozzle 25 arranged adjacent to the carding drum and in between moving flats 14 and fixed flats (Figure 1). This area is considered a refining area since moving flats and fixed flats are considered equivalents in the art because they perform the same function on the fibers (i.e., cleaning and paralleling the fibers). The suction nozzle 25 assembly ensures better removal of short fibers and trash from the fiber material and prevents an introduction of dust into the fiber material thereby resulting in cleaner and more desirable product.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the gravity feed chute of Kip et al. with a suction nozzle arrangement as taught by Pferdmenges et al. in order to provide a faster and more reliable removal of waste from the cleaned fibers thereby providing a more desirable product.

With regard to claim 8, the suction nozzles have blades 20.

With regard to claim 9, a control plate 28 is provided in the refining area.

6. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patelli et al. (U.S. 6,061,878) in view of Kip et al. (U.S. 878,884) as applied to claim 11 above, and further in view of Faas et al. (U.S. 5,448,800).

Patelli et al. and Kip et al. disclose the invention substantially as claimed above. However, they do not disclose that the precarding region comprises at least one fixed clothed segment, suction nozzle and blades. Patelli et al. does disclose at least one fixed clothed segment.

Faas et al. teaches a carding machine having a carding drum 20 and a precarding region (area upstream of the moving flats 28 in Figure 1). The precarding region has at least one clothed segment 30 in combination with a suction nozzle 32 and blade 34.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a suction nozzle and blade as taught by Faas et al. to the fixed carding segment of Patelli et al. to ensure separated waste is

removed from the fibers thereby reducing the likelihood of waste or trash being reintroduced back into the clean fibers.

With regard to claim 13, Faas et al. also discloses a post-carding region downstream of the moving flats (Figure 1).

With regard to claim 14, the invention is disclosed above.

7. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patelli et al. (U.S. 6,061,878) in view of Kip et al. (U.S. 878,884) as applied to claim 1 above, and further in view of Patelli et al. (U.S. 6,571,428).

Patelli et al. '878 and Kip et al. disclose the invention substantially as claimed above.

However, they do not disclose the insertion of auxiliary mechanisms upstream of the second briseur for pretreating the fiber fed to the first briseur.

Patelli et al. teaches a carding drum 10 having a first briseur 8F and a second briseur 8G wherein auxiliary mechanisms (32FG, 31FG) are provided upstream of the second briseur 8G in order to provide initial processing and cleaning of the fibers before they enter the main carding zone.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide auxiliary mechanisms as taught by Patelli et al.

'428 to device of Patelli et al. '878 in order to provide initial processing and cleaning of the fibers (or multiple types of fibers) before they enter the main carding zone.

With regard to claim 18, the auxiliary mechanisms are provided with blades 31FG and suction nozzles 32FG.

With regard to claim 19, the auxiliary mechanisms have a fixed clothed segment 41FG.

Allowable Subject Matter

8. Claims 4, 5 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion


9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mandl et al. '190 disclose auxiliary mechanisms comprising suction nozzles, blades and fixed clothed carding segments. Rutz '121 discloses fixed clothed carding segments in combination with moving carding segments. Ohnishi '046 discloses a carding machine having two sets of moving carding elements.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Welch whose telephone number is (703) 305-0451. The examiner can normally be reached on Mon-Fri 5:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John J. Calvert can be reached on (703) 305-1025. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3765

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Gary L. Welch
Primary Examiner
Art Unit 3765

glw